

Bedford 16156

**Bowman Brook Culvert
Rehabilitation**

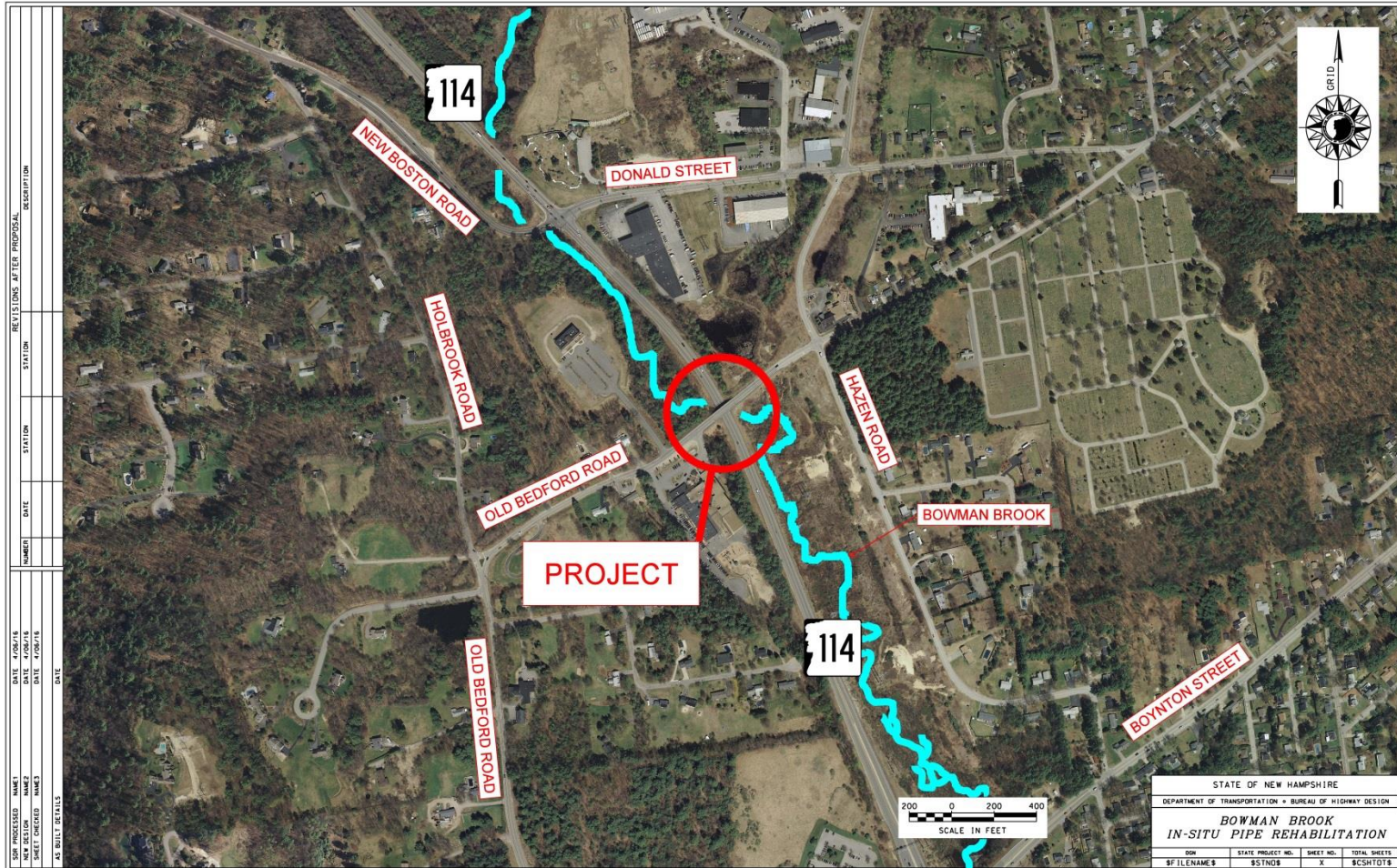
Public Informational Meeting

May 12, 2016

Agenda

- Welcome and Introductions
- Existing Conditions
- Improvement Alternatives
- Proposed Action
- Resource and Construction Impacts
- Construction Cost
- Schedule
- Questions and Comments

Project Location



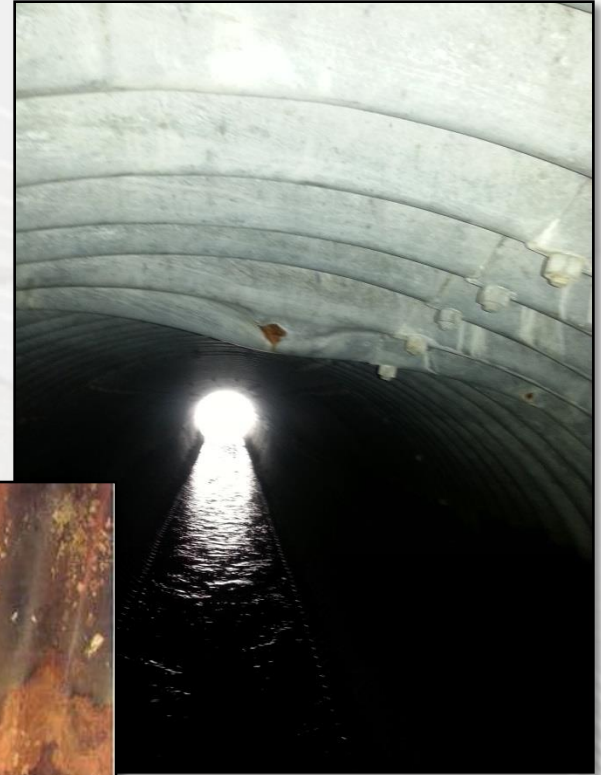
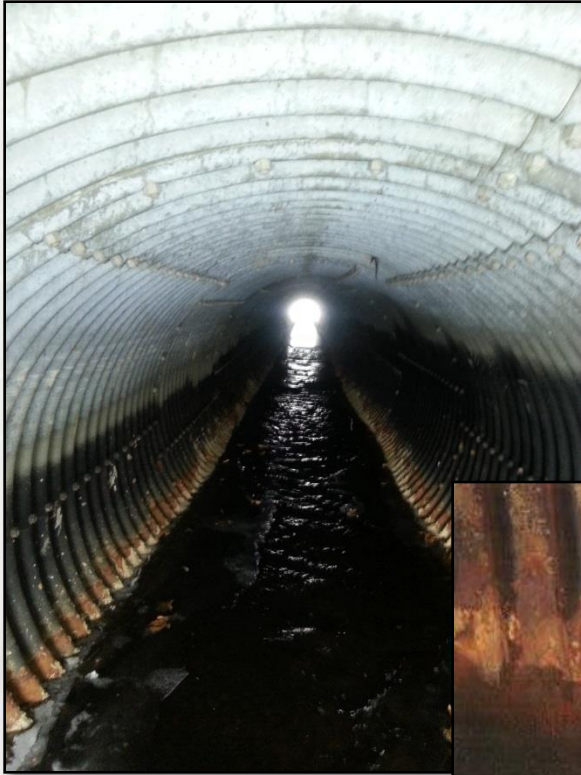
Project Location



Existing Conditions

- 87" x 83" Corrugated Metal Pipe (CMP)
 - Installed in 1964
 - Poor condition
- Installed Under NH Route 114 and the Old Bedford Road Bridge
 - Cut into Ledge, Within 5' of bridge substructure
- Natural Resources
 - Bowman Brook
- Right of Way
 - Existing Easement

Existing Conditions



Alternatives Analysis

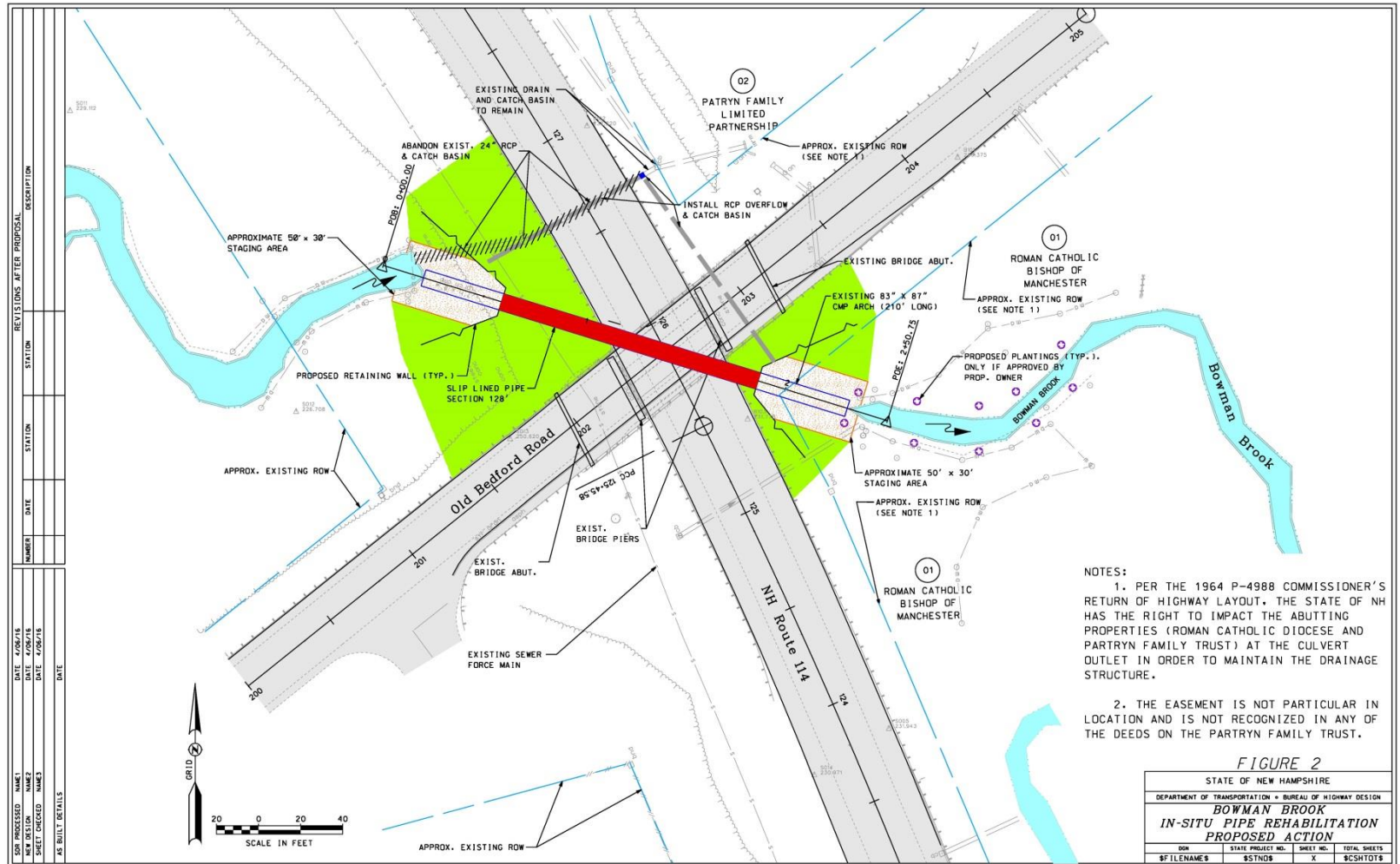
- Alternatives Considered
 - Alternative 1– 23' x 7' Box Culvert (South)
 - Alternative 2 - No Build
- Alternatives Considered, but Dismissed
 - Alternative 3 – 10' x 7' Box Culvert
 - Alternative 4 - 23' x 7' Box Culvert (North)

Proposed Action

- Proposed Action
 - In-Situ Rehabilitation
 - Shorten Existing Culvert by 80'
 - Construct Retaining Walls
 - Improve Inlet and Outlet Grading



Proposed Action



Proposed Action

- In-Situ Rehabilitation (Slip-Lining)
 - Maintain Existing Pipe
 - Increase Life Span
 - Restore Structural Integrity
 - Eliminate Need to Install Box Culvert Under NH Route 114 and Old Bedford Road Bridge
 - Shorten Construction Duration

Natural Resource Impacts and Mitigation

- Natural Resource Impacts
 - Less than 3,000 sf of Temporary Wetland Impact
 - Less than 100 feet of Bank Impacts
 - Maintain Flood Elevations
- Mitigation
 - Restore 80 feet of Culvert to Natural Channel
 - Install Stormwater Overflow Pipe
 - Install Shrub Plantings
 - Eliminate Hanging Pipe Condition

Constructability/Sequencing

- Minimize Traffic Impacts
- No Long Detours
 - Slip-Lining installation
 - Short Term Lane Closures
 - Overflow pipe installation
 - Alternating One-Way Traffic during low volume non-commuter hours
- Proposed overflow pipe will be used as temporary diversion of brook during slip-lining operations



Preliminary Cost Estimate

- Construction Cost of Preferred Alternative
 - \$1,000,000
 - 80% Federal / 20% State
 - No Local Funds

Preliminary Schedule

- Design
 - Complete NEPA Process – Summer 2016
 - Final Design – Fall/Winter 2016/2017
 - Permitting
 - Dredge and Fill
 - Advertise and Bid – September 2017
 - Construction – Summer 2018

Thank You

Plans and Presentation Materials are
Available on Internet

www.nh.gov/dot/projects
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